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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,574	07/30/2001	Alberto Ginesi	10.1019	2616

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EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,574

Applicant(s)

GINESI ET AL.

Examiner

JOHN J. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9-11, 13, 15, 16, 22-24, 26 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 4-8, 12, 14, 17-21, 25 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/23/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Appeal Brief, filed 8/29/2006, with respect to reconsideration have been fully considered and are persuasive. The finality of previous action has been withdrawn. Prosecution on the merits of this application is reopened.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claims 28-30: the claims are indefinite because they are not clear as to what is claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-3, 9-11, 13, 15, 16, 22-24, 26, and 28-31** are rejected under 35

U.S.C. 102(e) as being anticipated by Gross et al. (US patent number 6,549,520).

Regarding **claims 1 and 31**, Gross discloses that a method of reducing power required for transmitting a signal from a first transceiver (10 in Fig. 3) to a second transceiver (12 in Fig. 3) (column 11, lines 52 – column 12, lines 45 and Fig. 3). Gross teaches that estimating at said first transceiver (10 in Fig. 3) an excess amount of power (measuring and monitoring SNRs, excessive power level) used by said first transceiver (10 in Fig. 3) for transmitting said signal (column 11, lines 52 – column 12, lines 58, Fig. 3, 6, and column 20, lines 49 - 67, where teaches the transceiver monitors and measures an signal noise ratios (excessive power) for feeding into the downstream). Gross teaches that the excess amount of power (measuring and monitoring SNRs, excessive power) for said signal is based at least in part on a value obtained during initialization (column 12, lines 22 – column 14, lines 46 and Fig. 3, 8, where teaches the transceiver monitors and measures an signal noise ratios (excessive power) for feeding into the downstream for the value gaining during initialization). Gross teaches that reducing a power use of said first transceiver by said excess amount of power to a reduced power level (desired power level) (column 11, lines 52 – column 12, lines 58, Fig. 3, 8, and column 21, lines 38 – column 22, lines 15, where teaches reducing below the level (excess amount of power) of objection by reducing the power level (the power level at which the subscriber or downstream modem transmits to the central office or upstream modem)). Gross teaches that transmitting said signal from said first transceiver (10 in Fig. 3) using said reduced power level, wherein said reduced power level achieves a transmission rate of said signal

within a predefined tolerance of a target rate thereof (column 14, lines 9 – 58 and Fig. 3, 8, and column 11, lines 52 – column 12, lines 45, where teaches the transceiver transmits the signal using reduced power level for achieving a transmission rate within acceptable reducing the transmission rate).

Regarding **claim 2**, Gross teaches that the first transceiver (10 in Fig. 3) is located at one of a central office (10 (telephone central office) in Fig. 3) and a remote loop carrier (local subscriber loop carrier), and comprises a downstream transmitter (14 in Fig. 3) and an upstream receiver (14 in Fig. 3), and wherein said second transceiver (12 in Fig. 3) is located at an end user location (Fig. 3) and comprises an upstream transmitter and a downstream receiver (Fig. 1, 3 and column 15, lines 24 – column 16, lines 20, where teaches the first transceiver is located at central office and local subscriber loop carrier, and comprising transmitter and receiver, and second transmitter having a transmitter and receiver).

Regarding **claim 3**, Gross teaches that the excess amount of power for said signal is estimated in accordance with a measured value of upstream attenuation (column 11, lines 52 – column 12, lines 58, Fig. 3, 8, and column 21, lines 38 – column 22, lines 15, where teaches measuring and monitoring SNRs, excessive power level and reducing below the level (excess amount of power) of objection by reducing the power level (the power level at which the subscriber or downstream modem transmits to the central office or upstream modem)).

Regarding **claim 9**, Gross discloses that the first transceiver reduces said power in accordance with excess SNR provided by said second transceiver (column 11, lines 52 –

column 12, lines 58, Fig. 3, 8, and column 21, lines 38 – column 22, lines 58, where teaches measuring and monitoring SNRs, excessive power level and reducing below the level (excess amount of power) of objection by reducing the power level (the power level at which the subscriber or downstream modem transmits to the central office or upstream modem), and the second transceiver notifies the power level to first transceiver).

Regarding **claim 10**, Gross discloses that a second initialization is required for transmitting said signal at said reduced power level (column 5, lines 9 – column 6, lines 27 and Fig. 3, 8, where teaches requiring by a complete reinitialization of the modem for exchanging control parameters (including desired power level)).

Regarding **claim 11**, Gross discloses that the excess amount of power is estimated by estimating an excess amount of SNR at said second transceiver for said target rate (column 11, lines 52 – column 12, lines 58, Fig. 3, 6, and column 20, lines 49 - 67, where teaches the transceiver monitors and measures an excessive signal noise ratios (excessive power) for feeding into the downstream for achieving a transmission rate within acceptable reducing the transmission rate).

Regarding **claim 13**, Gross discloses all the limitation, as discussed in claim 1. Furthermore, Gross further discloses that calculating at said second transceiver an attainable reduced power level for said transmitted signal (column 19, lines 10 – 62, Fig. 3, 8, and column 8, lines 5 - 60, where teaches calculating at a transceiver an reduced power margin, fixed signal-to-noise ratio for transmitting signal and adjusting the transmitting power level). Gross teaches that communicating said reduced power level between said second and first transceivers (column 11, lines 52 – column 12, lines 58, Fig.

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3, 8, and column 21, lines 38 – column 22, lines 58, where teaches measuring and monitoring SNRs, excessive power level and reducing below the level (excess amount of power) of objection by reducing the power level (the power level at which the subscriber or downstream modem transmits to the central office or upstream modem), and the second transceiver notifies the power level to first transceiver), wherein said first transceiver adjusts its power level during a first initialization and prior to a time period that would require a second initialization (column 8, lines 5 – column 9, lines 65, Fig. 3, 8, and column 13, lines 13 - 55, where teaches adjusting the transceiver adjusts its signal noise ratio (power level) by measuring and calculating the power level during the initialization, and if no parameter set is found within the time period, a complete reinitialization may be called).

Regarding **claim 15**, Gross discloses all the limitation, as discussed in claims 1 and 13. Furthermore, Gross further discloses that for reducing power required for transmitting a signal from a central office asymmetric digital subscriber line (ADSL) termination unit (ATU-C) to a remote ADSL termination unit (ATU-R), wherein said ATU-C includes a processor for controlling said ATU-C to implement processing (Fig. 3, 4, column 3, lines 60 – column 4, lines 17, and column 15, lines 24 – 60, where teaches the first transceiver (central office, ATU-C) and second transceiver (a remote ADSL termination unit (ATU-R)) user interface are ADSL interfaces with processor for controlling).

Regarding **claim 16**, Gross discloses all the limitation, as discussed in claims 3 and 15.

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Regarding **claim 22**, Gross discloses all the limitation, as discussed in claims 9 and 15.

Regarding **claim 23**, Gross discloses all the limitation, as discussed in claims 10 and 15.

Regarding **claim 24**, Gross discloses all the limitation, as discussed in claims 11 and 15.

Regarding **claim 26**, Gross discloses all the limitation, as discussed in claims 13 and 15.

Regarding **claims 28 and 30**, Gross teaches that the ATU-C adjusts its power level during initialization at a time before transmission of C-REVERB (column 8, lines 5 – column 9, lines 65, Fig. 3, 8, and column 13, lines 13 - 55, where teaches adjusting the transceiver adjusts its signal noise ratio (power level) by measuring and calculating the power level during the initialization, and if no parameter set is found within the time period, a complete reinitialization may be called).

Regarding **claim 29**, Gross teaches that the first transceiver adjusts its power level before transmission of C-REVERB (column 8, lines 5 – column 9, lines 65, Fig. 3, 8, and column 13, lines 13 – 55).

Allowable Subject Matter

6. Claims 4 – 8, 12, 14, 17 – 21, 25, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose "the measured value of upstream attenuation is calculated as a difference between a total transmit power transmitted from said upstream transmitter and a measured power of an upstream signal received at said upstream receiver, the first transceiver estimates per carrier signal-to-noise ratio (SNR) in accordance with bit-per-carrier, power-per-carrier, and SNR margin information received from said second transceiver, the second transceiver indicates a power cutback implicitly by reducing power-per-carrier information, and the first transceiver provides said second transceiver with a minimum SNR inflated by a value N corresponding to said excess amount of power, and wherein said first transceiver transmits at a power level reduced by said value N if said second transceiver is capable of supporting said minimum SNR inflated by said value N" as specified in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ulaskas et al. (US Patent number 6,532,277) discloses Method for Controlling DSL Transmission Power.

Getchell (US Patent number 6,697,487) discloses Power Control Data Delivery Consistency in Copper Plant.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks
Washington, D.C. 20231
Or P.O. Box 1450
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters,
Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**.
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor,
Edward Urban, can be reached on **(571) 272-7899**. Any inquiry of a general nature or
relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L
November 25, 2006

John J Lee


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
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